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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,879	02/11/2004	Hiroyuki Chonan	16NM02167	3374

7590 03/17/2005

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EXAMINER

ARANA, LOUIS M

ART UNIT PAPER NUMBER

2859

DATE MAILED: 03/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/776,879

Applicant(s)

CHONAN ET AL.

Examiner

Louis M. Arana

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/04, 8/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. This communication is responsive to your preliminary amendment filed 2/11/04. Claims 1-9 are currently pending in this application.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laskaris et al. P.N. 6,150,819 (Laskaris '819) in view of Laskaris et al., P.N. 6,662,434 (Laskaris '434).

Laskaris '819 discloses a method for making a circular pole piece for a MRI magnet. The pole piece is made of a number of blocks each of which is made of laminate tiles. Applicant's attention is directed to the description of Fig. 4E-H.

The only difference between the prior art as represented by Laskaris '819 and the claims at issue is the shape of the tiles. That is, while Laskaris '819 discloses tiles that are "trapezoidal" or "annular sector", (col. 5 lines 40-50), the claims at issue call for tiles that are hexagonal.

This difference however, would have been obvious to the artisan of ordinary skill in the art in view of Laskaris '434. In a similar arrangement as in Laskaris '819, Laskaris '434 teaches (see col. 5 line 20) hexagonal blocks as preferred.

6. Claims 2-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laskaris et al. P.N. 6,150,819 (Laskaris '819) in view of Laskaris et al., P.N. 6,662,434 (Laskaris '434) as applied to claims 1 and 9 above, and further in view of Ohta et al. P.N. 5,631,616.

The difference between the prior art as represented by the Laskaris' patents and the claims at issue are the various directional arrangements of the layers of the laminated

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hexagonal tiles. Ohta et al. teaches in reference to Fig. 12 and 13 that it is advantageous to use either non-directional steel as in Fig. 13 or if directional steel is used to vary or stagger the axes of magnetization as in Fig. 12. The person of ordinary skill in the art would readily realize that if the tiles or layers are hexagonal a 60-degree variation or staggering of the axes is required. That is, $360/6=60$. If the tiles were octagonal, the angle would be 45. In the square tile shown by Ohta et al. the axes are perpendicular or 90 degrees because $360/4=90$.


7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Inoue discloses a circular pole piece for a MRI magnet. Applicant is believed to be familiar with this document.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Louis M. Arana whose telephone number is (571) 272-2236. The examiner can normally be reached on M-Thurs. Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on (703) 308-3875. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Louis M. Arana
Primary Examiner
Art Unit 2859

Ima
3/15/05